

On Armenian *k'san*.¹

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The derivation of Arm. *k'san* “twenty” from PIE **wīkmti* or the like,² through an intermediate **gisan*, is as old as Hübschmann (1897:504) and has been endorsed by such scholars as Meillet (1936:100), Szemerényi (1960:26, 126), Djahukian (1967:161), and Schmitt (1981:53, 131).³ The first to question the validity of this assumption was Werner Winter (1965:106-07), who accepted Polomé’s suggestion (1950:543) that the Armenian initial voiceless aspirate, *k'*, may reflect an original cluster of voiceless laryngeals plus **w*. For this development, Polomé compared the *k'* found in several etyma with initial Indo-European **sw-*, e.g. *k'oun* “sleep” < **swop-no-*, *k'oir* “sister” < **swesor*, and *k'irtn* “sweat” < **swidr-*. Polomé reasoned that since PIE **sw* gave *k'* in Armenian, both **sw-* and **Hw-* may have fallen together as pre-Armenian **hw-*, which later gave the attested *k'*. There is nothing inherently improbable in this suggestion, but the evidence that Polomé adduced to justify such developments of a Proto-Indo-European laryngeal in Armenian is not compelling.⁴ Winter, instead, rejected Hübschmann’s etymology of **k'san* as endorsed by Meillet. He pointed out that *k's-* is phonetically [k^həs-], a fact that substantially weakens the claim of assimilative devoicing upon which the Hübschmann-Meillet etymology rests. Winter saw the initial *k'* as a reflex of a voiceless laryngeal plus **w* and concluded “the likelihood that *k'-* in *k'san* does indeed reflect PIE **Xw-* is therefore quite great.”

The sole evidence for the alleged laryngeal is the “prothetic vowel” of the innovative Attic-Ionic (ε) εἴκοσι “20,” apparently to be read *ἔῑκοσι* in Homer. But in archaic compound numeral phrases with the conjunction καὶ “and,” found especially in the “Catalogue of Ships,” even Homeric εἴκοσι is to be read **Ḥίκοσι*.⁵ Clearly, we are not dealing with a laryngeal-derived Greek prothetic vowel. Brugmann already realized this when he explained the Greek diphthong as being from the full-grade of a root **wei-* akin to Old Indic *vi-* “apart.” However, he acknowledged that elsewhere there was no evidence for such a diphthong.

Since we are not dealing with a prothetic vowel in the sense that ε is the regular anlaut development of certain liquids or the reflex of an earlier laryngeal — sounds that would be reflected in all Greek dialects, not merely East Greek — another explanation of the initial epsilon must be given. **ἔῑκοσι* is the regular reflex of PIE **se+wii-kṃti*. In the psilotic East Greek dialects, the initial epsilon stands for **ḗ-*, the reflex of the same connective **se* that is seen in *ἑκατόν* “100,” < **se+kṃtom*.

If the laryngealist explanation for East Greek **ἔῑκοσι* is to be rejected, some alternative must then be given for the Armenian initial *k’-*. Stuart Mann has attempted a non-laryngealist explanation of the Armenian phenomenon. In his account (1963:93), Mann noted that another source of Armenian *k-* could be **tw*; accordingly, he proposed an intermediate **twikṃti*, assimilated from **dwikṃti*. The ultimate form is apparently taken as a decadic formation built upon the number “two,” **dw-o-e*, an unsound idea first proposed by Bartholomae and rejected by Hübschmann as early as 1897. It is improbable that Armenian would preserve traces of a cluster which Greek, Avestan, and Old Irish — languages that typically preserve traces of original Proto-Indo-European complex initial consonantism — fail to show any trace of. Also a derivation of **wii-* from **dw-o-e* makes it difficult to explain the “long” **ii* of **wii-kṃti* which is securely attested by the long first vowel of Lat. *vīgintī*, Av. *vīsaiti*, NPers *bīst*, and Therañ *hīxadi*.

In 1973 Charles de Lamberterie revived an idea of Holger Pedersen (1904:33) — cf. Benveniste (1959) — that the voiced stops of classical Armenian were really voiced aspirates, as they are in some present-day eastern dialects (cf. Allen, 1950:193 and Vogt, 1958). This view has been adopted by Rüdiger Schmitt (1980:420-21). Lambertonie thus viewed the preclassical **g* in hypothetical **gisan* as [g^h]. After apocopation, subsequent devoicing before *s* gave the attested *k’*. I do not believe that this is a viable solution. The only examples of the devoicing of the alleged voiced aspirates that Lambertonie and

Schmitt offer are *k'san* and the prefix *t's-* in loanwords from Iranian *duš-*, e.g. *t'suar* "unfortunate," cf. Av. *dušx'arənō*.

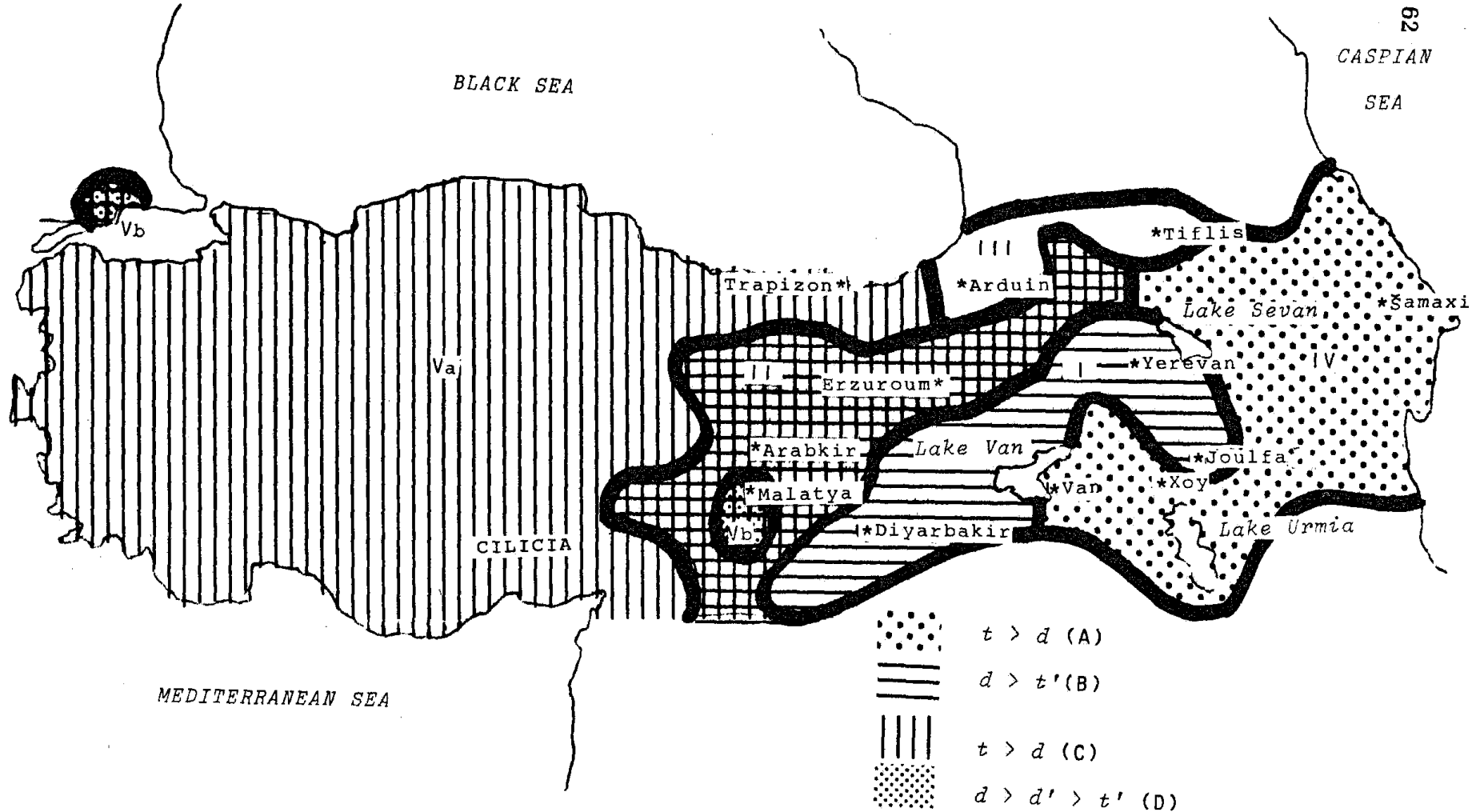
Once the Iranian loans are excluded, the argument is reduced to a single example, *k'san*, and the *a priori* conviction that the classical Armenian voiced stops were phonetically voiced aspirates. At best, such reasoning is circular. It is highly unlikely that the classical values for the voiced stops match those of the modern southeastern Armenian dialects. Benveniste (1959) was attracted to this idea in the belief that classical Armenian would thereby be shown to have preserved the original Proto-Indo-European voiced aspirates. Typological considerations now make it very unlikely that Proto-Indo-European ever had a set of voiced aspirates, for as Roman Jakobson noted, a system of plain voiced and voiceless stops, with accompanying voiced aspirates only, is nowhere found among spoken languages of the world (1958).

The geographical distribution of aspirated stops in the modern Armenian reflexes of the classical voiced stops clearly points to the innovative status of the aspiration. Vogt (1958) listed six dialect regions based on the treatment of the stops — I (Yerevan-Joulfa-Diyarbakir), II (Erzuroum-Arabkir), III (Arduin-Tiflis), IV (Šamaxi-Xoy-Van), Va (Trapizon-Cilicia), and Vb (Malatya and islands within European Turkey). These are given in Map One on the following page.

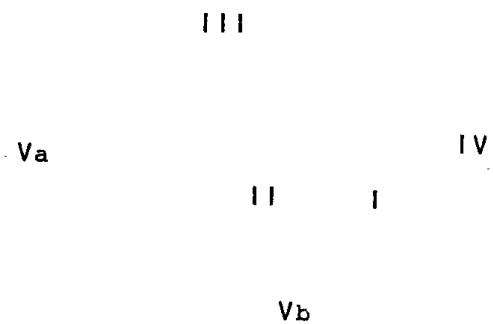
A slightly different division of the dialect boundaries was given by Pisowicz (1976). His map (p. 12) may be compared with Map One above based on Vogt (1958). The precise delineation of the various dialect regions is not essential to the following discussion, for the principal sound changes the initial consonants are agreed upon by both authors.

All Armenian dialects retain the classical voiceless aspirates as such. The divergences among the six dialect regions lie in the treatment of the voiced and voiceless stops. Regions I and II have voiced aspirates for the voiced stops of classical Armenian. Region III represents the system generally assumed for classical Armenian — voiced, voiceless, and voiceless aspirated stops. In Region IV, the classical voiced and voiceless stops fell together as voiceless stops; in Va, the two original sounds coalesced as voiced stops. In Region Vb, the voiced stops and voiceless aspirates of classical Armenian merged as voiceless stops. Abstracting these regions as in Map Two on page 63. presents an intelligible pattern of dialects. We can account for this distribution by positing four changes from the state of classical Armenian:

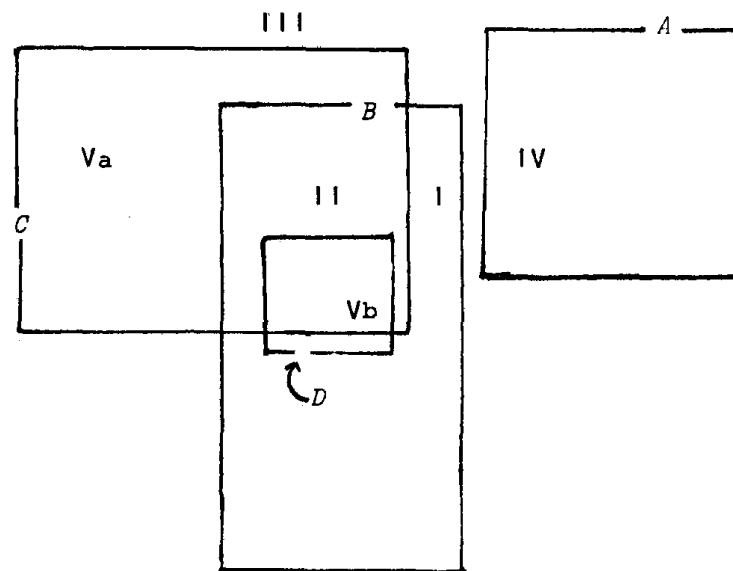
Map One Armenian Dialect Regions (after Vogt, 1958)



Map Two
Armenian Dialect Regions in Abstract



Map Three
Four Sound Changes



A) the creation of a "Caspian" dialect (IV) by the change of voiced stops to voiceless,

B) the creation of southern dialects (Vb, II, and I) by the change of voiced stops to voiced aspirates,

C) the creation of western subvarieties (Va from III, and II and Vb from I) by the change of voiceless stop to voiced stop, and

D) the creation of the Malatyan dialect (Vb) by the sound change of voiced aspirate to voiceless aspirate. The changes can be mapped as in Map Three.

It is clear that, except for the Caspian sound shift (A), the changes in the Armenian consonants represent innovations centering on the southwest, where, because of the political and historical importance of this region for the Roman and Parthian contest over Syria, we would expect the greatest cultural activity and influence to be present. Region III, with the consonantism assumed for classical Armenian, is seen in this scheme as a peripheral region along the southern edge of the Caucasus, just where we would expect to find conservation of ancient features. From these facts, we must conclude that the aspirated pronunciation of the reflexes of classical voiced stops is an innovation in dialects I, II, and Vb.⁶

If the explanation of Armenian *k'san* is not to be found in lost Indo-European laryngeals, in unique Armenian preservation of an initial consonant cluster, nor in the devoicing of Proto-Armenian voiced aspirates, what is the source of *k'* in Arm. *k'san* "twenty?" The explanation, I believe, lies, like that for the initial epsilon of East Greek *ἑξήκοσι* and the pan-Greek *ἑκατόν*, in the syntax of old numeral phrases. Brugmann and others quite rightly recognized that, although Gk. (ἐ) *ἑξήκοσι*, Lat. *vīgintī*, and Av. *vīsaiti* are indeclinable, the Proto-Indo-European reconstruction, **wii-k̑mti*, points to an old neuter dual which is analyzed as containing **wi-* "opposite, the next" plus **k̑mt-* "decade." The "long" **ii* of the first element is assured by comparison of Av. *vīsaiti*, NPer. *bīst*, Lat. *vīgintī*, and the metrics of Greek, especially a Thera inscriptional form, *ἡῖκαδι* (for *ἡῖκατι*), in an iambic trimeter. The origin of this "long" vowel puzzled Brugmann, but he duly noted that length was required by the evidence. This length is understood by noting that the Indo-European form is an exocentric numeral compound of the type called *dvigu* by Indian grammarians. Both the first element, **wi-*, and the second element, **k̑mt-*, are inflected by the neuter plural ending, **-i*; therefore, the "long" **ii* of **wii-* has a morphological origin.

Nevertheless, the neuter was not preserved in all languages. The masculine collective **wi(i)k̑mts* (> Gk. *εἶρας* (for *ἑῖρας*) and Olrish *fiche*) seems to have promoted the assignment of **wii-k̑mti* to the

masculine gender. This is the explanation for the final long *-ī* in Lat. *vīgintī* which has the masculine plural ending substituted for the original dual. The same substitution occurred in the Albanian numeral-element *-zet* "score," which must reflect **wiik̑mtoi* with the typical accent of an exocentric compound. A similar masculine substitution occurred in pre-Armenian. The antecedent form, like Alb. *njēzet* "20,"⁷ was compounded with the Proto-Indo-European numeral for "one," **sems*, thus **sems+wii-k̑mt-* "one score." This phrase was metanalyzed as **sem+swii-k̑mt-*, and it is the resultant **swii-k̑mt* that regularly gave pre-Armenian **hwitsan* > *k'san*.

Thus, the explanation for the unexpected initial consonant in Armenian lies not in Indo-European laryngeals, nor in any Indo-European initial consonant cluster, nor in Indo-European voiced aspirates preserved in Armenian, but in a purely internal Armenian phenomenon — the false analysis of a sandhi form.

FOOTNOTES

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² For typographic reasons I have departed from my usual orthographic preferences in the matter of the palatals and the consoidal allophones of the semivowel glides. The former are here written *k* etc., the latter *w* and *y*. In my own reconstructions, I still write non-laryngeal "long" vowels as geminates reflecting my view that such length always has a morphological basis.

³ Schmitt explicitly reconstructed **wīk̑mti* twice, yet curiously in the section on the development of PIE **w*, (1981:69-70) he fails to make any mention of the odd initial in *k'san*.

⁴ In a later paper, Polomé has questioned many of his former views on laryngeal reflexes in Armenian and concluded that only prothesis and the spiritus asper are likely evidence of Proto-Indo-European laryngeals (1980:29).

⁵ This shows that the epsilon-initial forms in Attic, Ionic, Lesbian, and Arcadian are later East Greek innovations and that the digamma-initial forms preserved in Cretan and Boiotian *Ἰχᾱτι*, beside Heraclian *Ἰελᾱτι* and Lakonian *βελᾱτι* · *εἰχοσι* [Hes], are also original to Ionic.

⁶ Pisowicz (1976:71-91) also accounts for modern Armenian consonantism by evolution from the classical values.

⁷ In this late compound, Alb. *njē-* is leveled from the feminine and represents **smiA₂* > pre-Alb. **(s)mjā* > **njā* > *njē*.

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